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(54) **Apparatus and method for percutaneous implant of a paddle style lead**

(57) A needle assembly for introduction of a paddle style lead near a spinal column of a patient includes a body having a proximal end and a distal end, a lumen with a continuous oblong cross section, and a paddle style lead adapted to accept a stiffening member. The distal end of the body has an introducer portion where the top side of the introducer has an orifice to allow for protrusion of the paddle style lead from the lumen into the spinal column area. The needle has a hub affixed to the proximal end of the body which is adapted to receive a stylet. The needle may also have a stylet that is inserted within the lumen. The introducer of the needle has a curvature extending from the bottom side toward the top side at the distal end and guides the introduction of the paddle style lead near the spinal column.

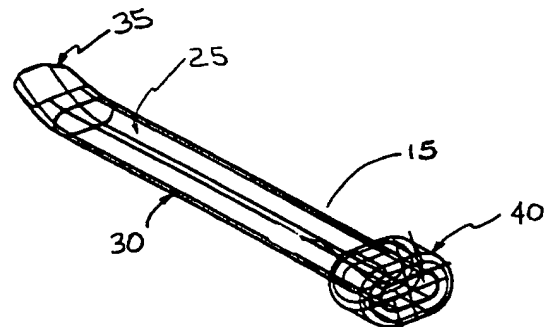


FIG. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 00 10 9071

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 4 141 365 A (FISCHELL ROBERT E ET AL) 27 February 1979 (1979-02-27) * the whole document *	1-3,11, 14,16,17	A61B17/34 A61N1/05
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A	US 4 588 398 A (DAUGHERTY CHARLES W ET AL) 13 May 1986 (1986-05-13) * claims 1,5 *	20	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18 October 2000	Examiner Kousouretas, I
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document</p> <p>T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons A: member of the same patent family, corresponding document</p>			



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EUROPEAN SEARCH REPORT

Application Number
EP 00 10 9071

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
P,A	WO 00 09177 A (BAXTER INT) 24 February 2000 (2000-02-24) * page 10, line 19 - page 11, line 8 * * page 15, line 1 - line 5; figures * -----	20	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18 October 2000	Examiner Kousouretas, I
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 00 10 9071

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-15

A needle assembly for introduction of a paddle style lead in a spinal column comprising a body having lumen with oblong cross section, a hub, a stylet and a paddle style lead.

2. Claims: 16-19

A paddle style lead comprising a first and a second side, the first side having a blind hole and a through hole adapted to receive a stiffening member and a stiffening member.

3. Claim : 20

A paddle style lead comprising a paddle lead made of at least one temperature controlled material being stiff at a first temperature and flexible at a second temperature.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 10 9071

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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18-10-2000

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